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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,812	01/06/2006	Masahiro Koga	003D.0073.U1(US)	6356
29683	7590	05/30/2007	EXAMINER	
HARRINGTON & SMITH, PC				FIGUEROA, FELIX O
4 RESEARCH DRIVE		ART UNIT		PAPER NUMBER
SHELTON, CT 06484-6212		2833		
			MAIL DATE	DELIVERY MODE
			05/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

✓ 11 4 86

Office Action Summary	Application No.	Applicant(s)
	10/540,812	KOGA, MASAHIRO
	Examiner	Art Unit
	Felix O. Figueroa	2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 02 April 2007.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1 and 3-13 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1 and 3-13 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____. _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/02/2007 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5-7, 9-11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Kunishi et al. (US 5,306,168).

Kunishi discloses a connector, whereof a portion (9) of a housing (4) protrudes, and wherefor an electrical connection and mechanical fixation is achieved by said protruding portion being housed within a recessed portion of an opposing connector, characterized by: the housing having a fixing portion (10) fixed to a board (1), wherein said protruding portion (9) is movable, and wherein the fixing portion and the protruding portion are separate (i.e. spaced apart) from each other; said protruding portion being supported by the housing fixing portion via contact portions (5/21); said protruding

Art Unit: 2833

portion having first stoppers (at 27, Fig. 6) that come into contact with the contact portions thereby stopping said protruding portion when the connector is inserted in the opposing connector; and said contact portions having second stoppers (31) that come into contact with the fixing portion when the fixing portion is moved in a direction away from the opposing connector thereby stopping said protruding portion when the connector is removed from the opposing connector.

Regarding claim 3, Kunishi discloses the contact portions being exposed on one surface of the protruding portion, and having touching portions that electrically connect to an opposing connector (see Figs. 3 and 6, for example).

Regarding claim 5, Kunishi discloses the first stoppers being formed in the housing, restricting the movement of the protruding portion in both the insertion and removal directions of the connector (see Fig. 6).

Regarding claim 6, Kunishi discloses a connector comprising a housing (4) including a fixing portion (10) adapted to be fixed to a board and a movable protruding portion (9) adapted to be housed within a recessed portion of an opposing connector, said fixing portion and said protruding portion being separate (i.e. spaced apart) from each other, and said protruding portion being supported by the housing fixing portion via contact portions (5/21); wherein said protruding portion comprises first stoppers (at 27, Fig. 6) adapted to come into contact with the contact portions thereby stopping said protruding portion when the connector is inserted in the opposing connector; and wherein said contact portions comprise second stoppers (31) adapted to come into contact with the fixing portion when the fixing portion is moved in a direction away from

the opposing connector thereby stopping said protruding portion when the connector is removed from the opposing connector.

Regarding claim 7, Kunishi discloses the contact portions being exposed on one surface of the protruding portion, and having touching portions that electrically connect to an opposing connector (see Figs. 3 and 6, for example).

Regarding claim 9, Kunishi discloses the first stoppers being formed in the housing, restricting the movement of the protruding portion in both the insertion and removal directions of the connector (see Fig. 6).

Regarding claim 10, Kunishi discloses a connector comprising: a housing (4) comprising a fixing portion (10) and a movable protruding portion (9), wherein the fixing portion is adapted to be fixed to a board, wherein the movable protruding portion is adapted to be housed within a recessed portion of an opposing connector, wherein the fixing portion and the protruding portion are separate (i.e. spaced apart) from each other, wherein the protruding portion is supported on the housing fixing portion by contact portions (5/21); wherein the protruding portion comprises first stoppers (at 27, Fig. 6) adapted to contact the contact portions to stop the protruding portion when the connector is inserted in the opposing connector; and wherein the contact portions comprise second stoppers (31) adapted to contact with the fixing portion when the fixing portion is moved in a direction away from the opposing connector to stop the protruding portion when the connector is removed from the opposing connector.

Regarding claim 11, Kunishi discloses the contact portions being exposed on one surface of the protruding portion, and having touching portions that electrically connect to an opposing connector (see Figs. 3 and 6, for example).

Regarding claim 13, Kunishi discloses the first stoppers being formed in the housing, restricting the movement of the protruding portion in both the insertion and removal directions of the connector (see Fig. 6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 8 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Kunishi in view of Yokoyama et al. (US 6,347,950).

Kunishi discloses substantially the claimed invention except for contract portion arrangement. Yokoyama teaches the use of a zigzag arrangement, thus providing connection with an appropriate mating arrangement. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a zigzag arrangement, as taught by Yokoyama, to provide connection with an appropriate mating arrangement.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection, as applied.

In response to Applicant's argument that Kunishi fails to teach "wherein the fixing portion and the protruding portion are separate from each other", please note that *Random House Unabridged Dictionary* defines "separate" as "to keep apart, as by an intervening space". In Kunishi, the protruding portion and the fixing portion are spaced apart, i.e. separate, from each other.

In response to Applicant's argument that Kunishi fails to teach "contact portions having second stoppers that come into contact with the fixing portion when the fixing portion is moved in a direction away from the opposing connector thereby stopping said protruding portion when the connector is removed from the opposing connector", please note that while the claim recites that "second stoppers that come into contact with the fixing portion when the fixing portion is moved in a direction away from the opposing connector" the claim does not require the second stoppers to not contact the fixing portion when not moved in a direction away from the opposite connector. In this case, Kunishi teaches the second stoppers that come into contact with the fixing portion when the fixing portion is moved in a direction away from the opposing connector, and even before the fixing portion is moved.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix O. Figueroa whose telephone number is (571) 272-2003. The examiner can normally be reached on Mon.-Fri., 10:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (571) 272-2800 Ext. 33. The fax phone

Art Unit: 2833

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Felix O. Figueroa/
Primary Examiner
Art Unit 2833